

REMARKS

The examiner's continuing rejection under 35 USC 103(a) is respectfully, but strenuously contested.

The examiner has reasoned that a person of ordinary skill in the art would have been motivated to combine the teachings of US 5,880,235 (Schwind) with those of US 5,319,014 (Moorman) to arrive at Applicant's invention.

As explained before, the principal reference, Schwind, deals with certain lactone-based copolymers to make cast glass and thermally dimensionally stable molding materials.

Schwind explains that prior to the Schwind invention, polymethylmethacrylates ("PMMA's") were used to make molded plastic articles that "exhibit high transparency and excellent optical quality," but that the usefulness of these materials is limited by their softening properties. See Col. 1, lines 15 to 22.

Schwind further explains that prior to the Schwind invention, certain polycarbonates can be considered "transparent plastics," but, like the PMMA's, their "service temperatures" are unacceptably low, and that the polycarbonates are particularly sensitive to scratching. See Col. 1, lines 28 to 35.

In discussing British patent 641,310, Schwind disparages the polymers taught in the British patent because, among other things, they have a "slightly yellow color." See Col. 2, lines 9 and 10.

Given the above, Schwind very clearly explains what objective is sought in the Schwind invention: "thermally dimensionally stable, transparent plastics with high optical quality." See Col. 3, lines 13 to 20 (emphasis added).

Schwind further explains:

"The inventors of the present invention [Schwind et al.] therefore sought to address the problem of creating a polymeric initial material which is at least equal to the positive properties of PMMA (transparency, resistance to atmospheric corrosion, processability) but which exceeds it in thermal dimensional stability."

Schwind, Col.3, lines 21 to 26 (emphasis added).

Schwind continues with a further sentence as follows:

Moreover, the inventors also sought to invent a plastic material that is suitable for producing formed materials in a casting process or for processing in plastic molding materials from which formed materials with elevated thermal dimensional stability can be manufactured in injection molding and/or in an extrusion process.

Schwind, Col 3, lines 26 to 31.

Note that this further sentence begins with the word “moreover.” The dictionary defines “moreover” to mean “in addition to.” See Webster’s Ninth New Collegiate Dictionary. The sentence does not begin with a word such as “alternatively.”

It is clear then, that the objective in Schwind was the development of a new polymer that retained, among other things, the good optical properties (transparency) of PMMA, but along with improved other properties, such as higher thermal dimensional stability.

This conclusion is reinforced as one reads further into Schwind.

At Col. 4, lines 19 to 22, Schwind teaches “If (meth)acrylates are used as vinylic momomers, molded plastics are obtained which are thermally dimensionally stable, resistant to atmospheric corrosion, and exhibit the same good optical properties as PMMA.” (Emphasis added.) This reinforces that optical properties are important, even in molding.

At Col. 9, lines 64 to 66, Schwind states that “Especially preferred monomers include those whose homopolymers can be processed to transparent, glassy plastics.” (Emphasis added.)

At Col. 11, lines 16 to 23, Schwind teaches a preferred copolymer, one that is “transparent and clear.”

In Table 1, Schwind characterizes virtually every Example or “Reference Example” in the patent and includes an evaluation of the “optics.”

Thus, it is clear that the Schwind reference deals with copolymers that have good optical qualities (transparency), preferably as good as PMMA. Even slight “yellowness” is disparaged in the “Background” section of Schwind.

The examiner appears to be interpreting Schwind as though it is teaching optical clarity as one property and thermal dimensional stability as an independent property. This interpretation is unequivocally refuted by a reading of Schwind in its entirety, as it legally must be in the context of a rejection based on 35 USC 103(a). That is to say, the examiner must consider how the entirety of the teaching would motivate or not motivate a person having ordinary skill in the art to combine its teachings with those of another reference, here the Moorman patent.

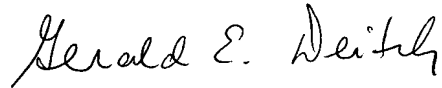
As stated in Applicant’s previous response, Schwind’s teaching of the need for a copolymer that preserves the good optical properties of PMMA, but with improved other properties, would dissuade, not encourage, a person of ordinary skill in the art to combine the Schwind copolymers with the “fillers” taught in Moorman, because by doing so, the optical properties that Schwind is so careful to preserve would be destroyed. The fillers of Moorman would cause haziness or opacity in the Schwind materials.

The examiner states that it is common to fill polymers with fillers. Assuming for the sake of argument that that is so, one must then question why Schwind does not teach the use of fillers (which would make Schwind an anticipatory reference). The answer is easy. One must infer that the Schwind inventors recognized that the use of fillers would be inconsistent with the types of materials that they were attempting to develop. The examiner’s opinion to the contrary is so inconsistent with the Schwind teaching as a whole, that the present

Applicant must conclude that the rejection is based on impermissible hindsight reconstruction of the present invention.

For the foregoing reasons, Applicant urges the examiner to reconsider her position, withdraw the outstanding rejection, and allow the currently pending claims.

Respectfully submitted,

A handwritten signature in black ink, reading "Gerald E. Deitch". The signature is written in a cursive, flowing style.

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